HP 2500C PROFESSIONAL SERIES COLOR PRINTER - MEMORY USAGE OVERVIEW

SECURITY: Public

QUESTION: How does the HP 2500C series printer use its internal **memory** ?

ANSWER: The way the printer addresses **memory** depends upon the printer language (personality) being used. The 4 MB of base **RAM** will be used only for PCL 3 printing and to support the printer's internal functions. PCL 3 printers can only access 4 MB of **memory** and are not **memory** upgradeable. They accept only as much data from the computer as they can handle and will control the I/O pipeline to prevent themselves from overrunning available **RAM** .

PostScript (R) and PCL 5 personalities require expanded **memory** to store and process data because it processes an entire page at once. HP 2500C series printers can access a maximum of 72 MB of **memory** while printing in PostScript and PCL 5 mode. The printer can physically accept more than 72 MB of **RAM** ; however, the printer will not use this additional **memory** . Adding **memory** to the printer will allow the printer to process more complex jobs, but it may not increase processing speed.

NOTE: The **SIMM** slots for expanded **memory** support 8, 16, and 32 MB **memory** modules. Either the PostScript Level 3 or the PCL 5Ce **DIMM** must be installed to utilize the **SIMMs** .

DETAILS: The HP 2500C series printer has four slots built into the printer to accept **memory** and alternate personality modules (PostScript Level 3 and PCL 5Ce). Two of these slots are designed for **memory** expansion using Single In-line **Memory** Modules (SIMMs) and the remaining two are designed to accept alternate personality PostScript and PCL 5 Dual In-line **Memory** Modules (DIMMs).

NOTE: There is a special 8 MB **DIMM** included with the PostScript Upgrade Kit or with the HP 2500CM printer. The 8 MB **DIMM** can be used only with the PostScript **DIMM** . It cannot be used with the PCL 5 **DIMM** or **memory** errors will occur.

Please refer to the tables below for supported **memory** and personality combinations.

Depending upon your printing needs, there is a PostScript Upgrade Kit, PCL 5 Upgrade Kit, and five **memory** upgrade options from which to choose. Refer to

the table below.

Product	Description	Part Number
HP 2500C PostScript Upgrade Kit	Contains PostScript Level 3 DIMM (w/ 8 MB on-board RAM), special 8 MB DIMM , and Software	C3289A
HP 2500C PCL 5Ce Upgrade Kit	Contains PCL 5Ce DIMM (w/ 8 MB on-board RAM) and Software	C3390A
HP 32 MB SIMM	1 x 32 MB 60ns EDO	C3392A
HP 16 MB SIMM	1 x 16 MB 60ns 72-pin EDO	C3391A
HP 64 MB SIMM	2 x 32 MB 60ns 72-pin EDO	D4543A
HP 32 MB SIMM	2 x 16 MB 60ns 72-pin EDO	D3648B
HP 16 MB SIMM	2 x 8 MB 60ns 72-pin EDO	D3647B

DIMM usage

The PostScript and PCL 5 personality DIMMs , and the special HP 8 MB memory DIMM are the only DIMMs supported by the HP 2500C series printer. DIMMs may be used only in expansion slots 1 and 2, regardless of order.

The PostScript and PCL 5 DIMMs cannot access the 4 MB of base RAM provided by the printer. The DIMMs can only access their on-board RAM and installed SIMMs . Only the PostScript DIMM has the ability to recognize and use the special 8 MB memory DIMM . Also, the PostScript and PCL 5 DIMMs do not share their on-board memory . The PostScript DIMM will not use the 8 MB of memory located on-board the PCL 5 DIMM and vice versa.

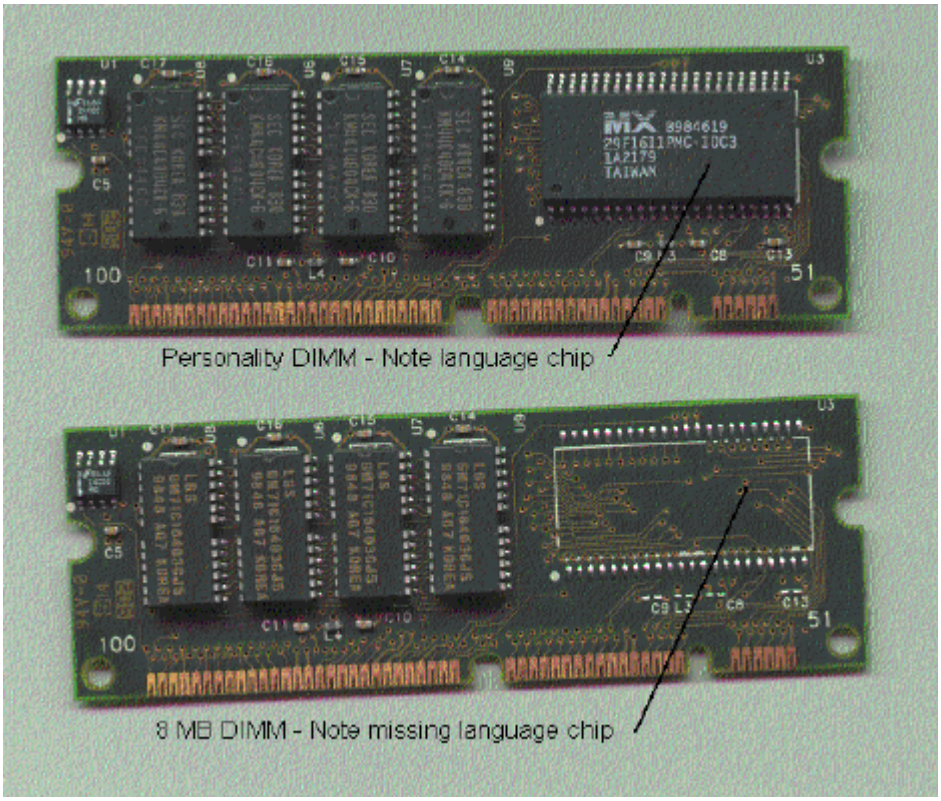
NOTE: To calculate the total RAM (DIMM and SIMM) installed in the printer, add the capacity of each installed SIMM to the Total RAM shown in the table. For example, with a PCL 5 and PostScript DIMM installed along with using an 8 MB and 16 MB SIMM , the total RAM installed in the printer is 20 MB + 8 MB + 16 MB = 44 MB.

NOTE: The total memory displayed on the LCD is calculated by multiplying the Total RAM installed by 1024K. For example, with installed DIMMs and SIMMs totaling 44 MB, total RAM displayed on the LCD is 44 * 1024K = 45056K.

The table below shows which DIMM combinations are possible.

Slot 2 Slot 1	Base RAM	Total RAM	Total RAM on LCD
Empty Empty	4 MB	4 MB	4096K
Empty PostScript or PCL 5 DIMM	4 MB	12 MB	12288K
HP 8 MB DIMM PostScript DIMM	4 MB	20 MB	20480K
PCL 5 DIMM PostScript DIMM	4 MB	20 MB	20480K

Figure 1: The picture below shows a Personality DIMM and the 8 MB memory DIMM



SIMM usage

To utilize SIMM expansion memory , the PostScript and/or PCL 5 DIMM

must be installed. The printer may recognize and display the total installed memory on the printer's LCD panel, but without a PostScipt or PCL 5 DIMM installed, the added memory will not be used. The SIMMs may be used only in expansion slots 3 and 4, regardless of order. The SIMM slots support 8, 16, and 32 MB memory modules.

The table below shows which SIMM combinations are possible.

NOTE: To calculate the Total RAM (DIMM and SIMM) installed in the printer, add 8 MB for each installed DIMM to the Total RAM shown in the table. For example, with installed SIMMs and base RAM totaling 20 MB, the printer's total RAM with one DIMM installed is 20 MB + 8 MB = 28 MB.

NOTE: The total memory displayed on the LCD is calculated by multiplying the Total RAM installed by 1024K. For example, with installed DIMMs and SIMMs totaling 28 MB, total RAM displayed on the LCD is 28 * 1024K = 28672K.

Slot 4 Slot 3	Base RAM	Total RAM	Total RAM on LCD
Empty Empty	4 MB	4 MB	4096K
Empty 8 MB SIMM	4 MB	12 MB	12288K
8 MB SIMM 8 MB SIMM	4 MB	20 MB	20480K
Empty 16 MB SIMM	4 MB	20 MB	20480K
8 MB SIMM 16 MB SIMM	4 MB	28 MB	28672K
16 MB SIMM 16 MB SIMM	4 MB	36 MB	36864K

Empty 32 MB **SIMM**	4 MB	36 MB	36864K
8 MB **SIMM** 32 MB **SIMM**	4 MB	44 MB	45056K
16 MB **SIMM** 32 MB **SIMM**	4 MB	52 MB	53248K
32 MB **SIMM** 32 MB **SIMM**	4 MB	68 MB	69632K

Figure 2: The picture below shows the back of a 16 MB and 32 MB SIMM: Colors and chipsets may vary